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DISCUSSION PAPER

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MANAGING BUYER-SELLER RELATIONSHIPS IN INDUSTRIAL MARKETS: A VALUE CREATION PERSPECTIVE

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Maria Smirnova Managing Buyer-Seller Relationships in Industrial Markets: A Value Creation Perspective. Discussion Paper # 30(E)–2006. Saint Petersburg State University: St. Petersburg, 2006.

The paper reports on the importance of customer relationships in industrial markets. Our study investigates the way customer relationships increase competitiveness and effective differentiation of industrial firms. The study contributed to the analysis of relationship value creation mechanism and understanding of the role of firm's relational capabilities. We focus on the supplier perceived value and its monetary and non-monetary aspects, and propose to look on the possibilities to obtain advantages by turning inwardly the supplier's firm and analyzing information about firm's relational assets and relational capabilities. The paper presents the conceptual model of relationship-based advantage creation and some findings from empirical study on the base of a sample of 185 German industrial firms.

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Managing Buyer-Seller Relationships in Industrial Markets: A Value Creation Perspective

Abstract

The paper reports on the importance of customer relationships in industrial markets. Our study investigates the way customer relationships increase competitiveness and effective differentiation of industrial firms. The study contributed to the analysis of relationship value creation mechanisms and understanding of the role of firm's relational capabilities. We focus on the supplier perceived value and its monetary and non-monetary aspects, and propose to look on the possibilities to obtain advantages by turning inwardly the supplier's firm and analyzing information about firm's relational assets and relational capabilities. The paper presents the conceptual model of relationship-based advantage creation and some findings from empirical study on the base of a sample of 185 German industrial firms.

All relationships are valuable…,
but some are more valuable than others

Ford & McDowell, 1999

Introduction

For many marketing academics and practitioners the value concept became the clue to better understanding relationships, interactions and networks framework, or so called IMP Group approach [Håkansson, 1982]. Due to the economy globalization and active search for new sources of sustainable competitive advantage customer relationships became unique assets that can contribute to firm's competitiveness and creation of long-term market success [Teece, 2000]. Intense development of this research sphere lead to a postulation of relationship marketing to be a new marketing paradigm [Parvatiyar, Sheth, 2001].

But after some period of rapid concept development, the attention of researchers has been drawn to the revision of the quality of the problems analyzed in research papers and conceptual approaches used to investigate relationships and interaction between market actors [Ford et al, 1998]. Thus the emphasis was put on the evaluation and re-conceptualization of relationship management strategy, as well as understanding, whether active and profound implementation of relationship approach really contributes to the achievement of the goals set by the firms pursuing it. Searching for an integrated indicator of relationship strategy success researchers focused on analysis of the value created through relationships. As Wilson [Wilson, 1995], business relationships create value in the sense that the competitiveness of the participating partners increases because of the interaction. Indeed, since value creation and value sharing are seen as basis and determinants of cooperation in customer-supplier relationships [Ulaga, Eggert, 2002; Wilson, Jantrania, 1996], they can be seen as the constructs, representing the outcomes of collaboration and indicating interaction success.

At the same time, despite growing interest to research problem, the fact, that many relationship marketing concepts and models do not include relationship value as the key variable can be explained through insufficient research on value nature and mechanisms of value creation [Ulaga, Eggert, 2002]. Emerging perception of the importance to understand the mechanisms and means of relationship value creation [Walter, Ritter, Gemünden, 2001] has indicated some research gaps.

First of all, there is more focus on analysis of the relationship value structure and lack of research on the determinants of relationship value creation processes in the research literature. Secondly, there is general lack of research on firm's capabilities supporting and enhancing interaction and relationship value creation. Our assumption is that relational assets may lead to relationship-based advantage creation only in case of being supported by organization-wide capabilities in form of unique organizational routines, skills, knowledge and know how. We suppose, that these capabilities allow the firm to effectively manage, reconfigure, protect and develop relational assets, leading to creation of superior relationship value and superior performance.

The objective of this paper is to analyze the possibilities to create relationship-based advantage, analyzing inter-firm interaction from supplier perspective. How could the relationship-based advantage creation processes be conceptualized? What are the main determinants? Thus we aim to develop a conceptual model and propose it for further research on relationship value creation mechanism and the role of relational capabilities.

Relationships as a source of advantage creation

Like other assets — tangible and intangible — business relationships create value. We can limit the analysis of the value created to the extent the relationships improve the future revenues and costs for the firm. However the research on the relationships nature imply their multifaceted content as a basis for broader relationship value understanding. The strategic perspective of focusing on benefits that enhance the competitive abilities of the partners are grounded in the resource-based view and lead us to the analysis of the sustained rents, created by relationships and not easily appropriated by competitors.

The review of concepts contributing to the understanding of competitive advantage creation from the resource-based perspective provides a good basis for discussion on the relationships as driver of firm's competitiveness improvement (see Table 1 below).

Table 1

Overview of some approaches to competitive advantage creation

Authors	**Concept**	**Advantage creation elements**
Day, Wensley, 1988	Competitive Advantage Framework	Sources of advantage — positional advantage — firm's performance.
Hunt, 1997	Resource Advantage Theory	Resources — market position — financial performance.
Morgan, 2000	Relationship-Based Advantage Creation	Understanding relationships content — relationship-based competitive advantage creation — development of value co-creating networks.
Day, Van den Bulte, 2002	Relationship-Based Competitive Advantage	Customer-relating capabilities development — relational & product advantages — business performance.

The models presented in the Table 1 follow the logic of the resources-based approach and imply development of firm's resources base and organizational capabilities, leading to creation of some advantage, contributing to the firm's performance. The nature of positional advantage creation can be based on superior value creation, lower costs [Day, Wensley, 1988], or better assets' and value creation potential understanding [Morgan, 2000].

The notion of relational value is adopted to describe a co-produced value that emanates from the specifics of being embedded in collaborative and co-operative activities [Pardo, Hennenberg, Mouzas, Naudè, 2006]. Since relational value is defined as being appropriated by both supplier and customer, its creation can be seen as indicator of relationship-based advantage creation and measured by both sides of interaction. Indeed, there are three value perspectives conceptualized in the research literature, representing value from the buyer's perspective, seller's perspective or integrated buyer-seller's perspective [Ulaga, 2001] (see Figure 1 below). Nevertheless, due to certain difficulties of simultaneous buyer and seller data gathering, most studies concentrate on one side of interaction — as our study does on the supplier's perspective.

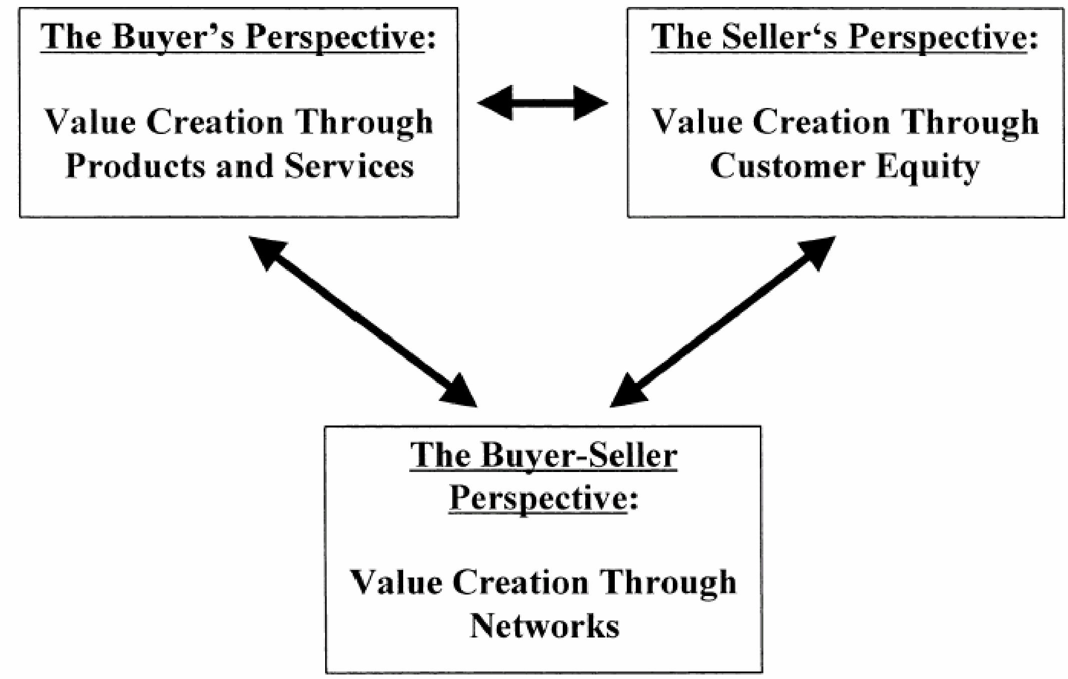

Fig. 1. The three dimensions of relationship value
Source: [Ulaga, 2001, p. 317].

Considering these reasons, we base our study on previous results of value research, stressing the importance of understanding the mechanisms and means of relationship value creation [Walter, Ritter, Gemünden, 2001]. We aim to answer the question "Why do firms differ, and how does it matter?" [Nelson, 1998] from the perspective of customer relationships in industrial markets. Focusing on the supplier perceived value and determinants of relationship value creation from the supplier's side, we propose to look on the possibilities to obtain advantages by turning inwardly the supplier's organization and analyzing information about the assets and relational capabilities of the firm.

Based upon the assumptions of the Day-Wensley approach [Day, Wensley, 1988] we imply, that development of firms relational resources and capabilities contributes to superior relationship value creation and finally leads to superior financial performance. Following the logic of this framework, we regard relationship value as positional advantage of supplier's firm, based on superior resources and capabilities, seen as relationship value determinants.

Relationship value as positional advantage

The value has traditionally been one of the core elements of marketing, and relationship value represents the next phase of evolutionary development of value research. In their profound survey on key value concepts in marketing, Payne and Holt [2001] regard relationship value as one of the newest and most promising approaches. The authors state, that value research has shifted from studying the values of individuals to looking how value can be created by an organization both internally and with respect to customers [Payne, Holt, 2001]. Indeed, the idea that business relationships create value in the sense that the competitiveness of the participating partners increases because of the relationship [Wilson, 1995] has lead to multiple concepts on the relationship value.

The interest to this topic has contributed to theoretical operationalization of relationship value construct [Ravald & Grönroos 1996; Mandjak & Durrieu 2000; Ulaga & Eggert 2002; Walter, Ritter & Gemunden 2001; Wilson & Jantrania 1996; Lindgreen, Wynstra, 2005; Grönroos, 1997), but there is still a lack of empirical evidence on determinants and mechanisms of relationship value creation as well as on its influence on firms' performance and adaptability.

In the foundation of the research on relationship value lies the simple assumption that the basic condition of the creation and maintenance of the relationship is that it provides some kind of value for both parties and value creation can be considered as a certain step in relationship development [Wilson, 1995]. Long-term buyer-supplier relationships are usually created with an expectation of synergy, i.e. an expectation that of creation value in a way that each of the partners alone could not create.

Previous research of relationship value has made success on structure and approaches to understanding of relationship value construct [Wilson & Jantrania, 1996; Mandjak & Simon, 2004; Ravalad & Grönroos, 1996]. Relationship value has always been understood by researchers as a multifaceted construct, containing multiple effects on relationships parties. Corresponding to this relationship value understanding, one of the first conceptualizations of relationship value [Wilson and Jantrania 1996] includes three value dimensions: economic, strategic and behavioral. The authors stress the idea that *any* relationship or strategic alliance create some value for both partners, and the main issue is *how* this value will be changed.

The main problem faced by researchers when investigating on the intangible components of relationship value is the problem of measurement.

Table 2

Main concepts of relationships value definition

Authors	Proposed relationship value definition	Main value dimensions
Wilson, Jantrania, 1996	Value is a problematic concept, that can be conceptualized along three dimensions	Economic dimension; Strategic dimension; Social (behavioral) dimension
Walter, Ritter, Gemünden, 2001	Value determined by direct and indirect relationship functions	Direct functions; Indirect functions
Krafft, 2002	Value created over time, including more benefits than just cash flow	Safeguard; Growth; Profitability
Werani, 2001	Relationship value as combination of benefits and sacrifices	Building of strategic competences; Economic effects; Product-related interaction; Direct costs of relationships
Tewes, 2003	Relationship value as supplier perceived benefits resulting from the customer potential (market and resources potential)	Monetary value; Non-monetary value
Tomczak, Rudolf-Sipötz, 2003	Relationship value as benefits determined by the market and resources potential of the customer relationship	Value as customer's market and resources potential
Forsström, 2003	Value created with the other party through business interaction during a certain period of time	Monetary (related to money, cash flows); Communicational value; Competence-related value
Mandják, Durrieu, 2004	We can classify the relationship value as perceived value, desired value or value judgement	Economic; Non-economic

Therefore most of research papers are aimed at contribution to understanding of the drivers of relationship value, its structure and dimensions [Baxter, Matear, 2004]. Table 2 represents selected concepts, providing and overview on different research approaches to relationships value definition and dimensions structuring.

The first conceptualization of relationship value construct was proposed by Wilson and Jantrania [1996], featuring three value dimensions — economic, strategic and social (behavioral). Wilson and Jantrania [1996] assume that "the economic dimension moves from a simple cost reduction that is achieved through the relationship partnership to a complex concurrent engineering relationship that creates value through cost savings in design, in assembly and field service and also has the benefit of reducing the time to market". The authors define value as highly problematic construct and propose to the researchers to start with the economic dimension of when measuring relationship value since this dimension is easier to define quantitatively.

The further development of the research literature has just supported this proposition, providing further examples of the possible value drivers. Thus there are numerous approaches to measurement of economic elements of relationship value. Economic effects are regarded first of all as outcome of relationships [Mandjak, Simon, 2004]. According to the concept of Walter, Ritter and Gemünden [2001] economic value elements correspond with the direct relationship functions — profit, volume and safeguard functions. This was a later concept of relationship value structure, that became quire popular due to clear structure and propose measurement model. As Walter, Ritter and Gemünden [2001], relationship value is defined by influence of direct and indirect functions — depending on providing direct (volume, profit, safeguard) or indirect (innovations, market function, access and scout functions) effects on the firm's performance.

The social (behavioral) elements are traditionally regarded as key factors for understanding of relationships and relationship value and include the continuity of the relationship which increases the confidence between the partners [Ravalad & Grönroos 1996], communicational value [Forsström, 2003], trust and commitment [Morgan & Hunt, 1994], social bonding and culture, developed by a relationship [Wilson & Jantrania, 1996].

Relationship value can be regarded through the specificity of the relationship and behavioral patterns such as relative interdependence, mutual dependence, loyalty in maintaining the relationship, rules of fairness and tolerance for conflict [Gassenheimer et al., 1998]. Understanding of these behavioral patterns results in creation of culture, supporting development and maintaining of relationship and creates superior value of relationship. Business relationships can be defined as a process where two organizations "form strong and extensive social, economic, service and technical ties over time, with the intent of lowering total costs and/or increasing value, thereby achieving mutual benefit" (Anderson and Narus 1991 p.96).

Finally, strategic value dimension wins more and more attention in the research literature [Werani, 2001; Tewes, 2003; Tomczak, Rudolf-Sipötz, 2003; Forsström, 2003]. According to Wilson & Jantrania model [Wilson and Jantrania, 1996] strategic dimension of relationship value assumes influence of customer relationships on creation of firm's long-term competitive advantage, improvement and development of firm's core competences, creation of market position. The strategic dimensions of the relationship enable the partners to obtain a competitive edge, to strengthen their basic skills, and to reach more favorable market positions. For example, time-to-market represents one of the components of strategic relationship value [Wilson, Jantrania, 1996; Ulaga, Eggert, 2002]. According to Mandjak and Durrieu [2000] we can broaden our strategic understanding of relationship value when including network perspective as constructive value (resource transferability, activity complementarity and actor-relation generalizability), integrative value (collaborative closeness, operational excellence) and deleterious value (resource particularity, activity irreconcilability and actor-relation incompatibility). This approach motivates us to consider the hypothesis about influence of network orientation on relationship capabilities development and supplier perceived relationship value.

Werani [2001] assumes that cooperative relationship value from seller perspective will be maximized if it is characterized by strong strengthening of the strategic position in the industry through trusting relations, strong economic effects, joint development of ideas and products and small coordination costs. This study has compared measurement of relationship value from buyer and seller perspective and has postulated certain difficulties when comparing the results, since the value measurement from each perspective originated from different value concepts. Nevertheless, from both perspectives the highest potential to create superior relationship value is connected with such relationship value dimensions as "building of strategic competences", "personal interaction" (or "building of strategic competences through personal interaction") and "economic effects".

Thus strategic relationship value is based first of all on the potential of creation of long-term sustainable advantage for partners through more effective relationships. Possible outcome of relationship development is increased relationship stability and thus increase in trust and relationship commitment [Morgan and Hunt, 1994]; more action freedom and prolonging of the planning horizon, superior quality, etc. For the partners, the existence of the business relationship increases the insurance and certainty of acquiring the required resources [Ford at al. 1998]. In the whole, orientation on creation of relationship-based competitive advantage leads to formation of a unique organizational and interorganizational culture, supporting and facilitating interaction. Thus the more factors contribute to the evidence of the increase in firm's competitiveness through effective relationship management; the higher are the entrance barriers for the rivals.

As addition to the above presented elements of strategic relationship value we can count information elements of relationship value [Walter, Ritter, Gemuenden 2001, Tomczak, Sipoetz, 2003; Eberling, 2002, Tewes, 2003]. Ulaga and Eggert [2002] consider know-how benefits of customer relationships. The role of information and knowledge, received by supplier's firm from the customer can hardly be overestimated: market data, demand trends, professional and complementary knowledge, innovative ideas — all the useful data, received from the customer's firm represents unique innovation and optimization source, enabling supplier to improve the effectiveness of decision taking processes.

Collaboration with customers contributes to improvement of supplier's technical competence, market intelligence, innovation and organizational learning [Forsström, 2003]. Companies tend to collaborate close with the high-competent partners operating on the edge of innovations and technical progress. In this case buyer-seller interaction can become a real innovation source [Walter, Ritter and Gemuenden, 2001] — not only for product innovations, but also for changes and improvement of processes, optimization of work organization, organizational structure adaptation.

Considering the analysis of research literature, we came to the conclusion, that we can define relationship value as construct, based on monetary and non-monetary elements — as an approach that allows us to integrate most of presented (see Table 2) research concepts and measurement models. Following our initial logic, this leads us to understanding of differences between the impact of the value creation determinants defined on a) monetary and b) non-monetary value and understanding of possible differences. The relationship-based positional advantage will thus be based in our model on two-part relationship construct — assuming its monetary and non-monetary components.

Relational capabilities

As Möller [2006, p.915], "in relationship value creation both the supplier and buyer must have or develop relational competences in addition to their existing internally-oriented competences". Following the framework of competitive advantage, we assume that development of relational capabilities is the main determinant of relationship value creation. The research field of relational capabilities of industrial companies represents just a few studies [Day and van den Bulte, 2002; Moeller and Törrönen, 2003], and the role of relational capabilities for relationship value creation has hardly empirical evidence.

Defining relational capabilities we can use the classic definition of dynamic capabilities [Teece, 2000] as firm's ability to sense and than to seize new opportunities, to reconfigure and protect knowledge assets, competences, and complementary assets and technologies to achieve sustainable competitive advantages on the base of customer relationship management. In association with definition of marketing capabilities [Weerawardena & O'Cass, 2004] it is possible to propose alternative definition of relational capabilities as integrative processes designed to apply the collective knowledge, skills, and resources of the firm to the relationship-related needs of the business.

Table 3

Comparative analysis of the main approaches to relational capabilities definition and measurement

Authors	Type of study	Name of the construct	Structure of construct	Scale description
Day & Van den Bulte, 2002	Empirical	Customer relating capability	Orientation Information Configuration	Single-item constructs
Möller & Törrönen, 2003	Theoretical	Relational capability	-	- (no scale proposed)
Jacob, 2003	Empirical	Customer Integration Competence	Process configuration Communication Control	27 items (9 items for each competence)

The main distinctive feature of relationship capabilities is that they are going outside of the marketing function and belong to cross-functional firm capabilities [Grant, 2004], since as integrated bundle of unique skills they require alignment of efforts of everyone in the company [Gummesson, 1999] and influence firm's performance.

Despite the lack of research in the field, there have been several studies, focused on relationship-based capabilities. Thus Möller and Törrönen [2003] investigate business suppliers' value creation potential. Due to this concept, value production includes creation of core value, value-adding relational value production and future oriented value production. The authors stress the fact, that only core value can be created on the basis of production capabilities. The more future-oriented and innovative is the firm's strategy, the more complicated aims are defined for relationship strategy and the more complex become capabilities, underlying the value creation. Relational capabilities represent one of eight types of capabilities, underlying supplier's value production.

Customer relating capability is also the central construct for the study of Day and Van den Bulte (2002), regarded as a bundle of three interrelated components: orientation, information and configuration, measured on the base of single-item scales.

The structure of customer integration competence construct, proposed by Jacob [2003] includes three dimensions — communication competence, process configuration competence, and control competence. This structure is similar to the elements of the customer relating capability [Day and Van den Bulte, 2003]: orientation, information and configuration. Each of these sub-dimensions includes items on resources available, personnel qualification and task execution in each of the spheres analyzed. The control competence in the model of Jacob [2003] presents additional emphasis on accomplishment in capability's implementation, and may have strong impact on the value created.

When measuring relationship value we face the outcome of all the range of relationship-related activities, resulting from multidimensional understanding of value and its possible drivers. Cross-functional nature of relational capabilities forces us to go outside of single organizational functions and processes and analyze the unique combination of resources, skills, assets and technologies of each firm.

Due to detailed measurement tool, the model of Jacob [2003] provided the advantageous approach to measurement and understanding of relational capabilities impact on both monetary and non-monetary relationship value creation. Even more, this approach allows us to analyze separately impact of relational capabilities sub-dimensions — its process configuration, communication and control aspects — and thus investigate the causal effects separately. We assume, that all the three relational capabilities dimensions [Jacob, 2003] have positive influence on both monetary and non-monetary relationship value creation, and thus contribute to firm's market success and competitiveness.

Finally, we assume that control capability may have influence on both process configuration and communication capabilities — since when the firm is investing in analytical procedures, aimed at relationship analysis and control, it should have invested also in relationship-related processes configuration and communication systems. As well as development of firm's process configuration capabilities should have positive effect on its communication capability.

H1-H2: Development of supplier's process configuration capability has strong positive impact on supplier's perceived monetary and non-monetary relationship value.

H3-H4: Development of supplier's communication capability has strong positive impact on supplier's perceived monetary and non-monetary relationship value.

H5-H6: Development of supplier's control capability has strong positive impact on supplier's perceived monetary and non-monetary relationship value.
H7-H8: Development of supplier's control capability has strong positive impact on the level of development of supplier's process configuration and communication capabilities.
H9: Development of supplier's process configuration capability has strong positive impact on the level of development of supplier's communication capability.

Business performance and adaptability

Organizational performance is a multidimensional construct, tapping financial, operational and customer-related performance domains [Kaplan and Norton, 1992].

For measurement of business results we use two constructs. The first one represents firm's overall performance and analyzes such indicators as changes in firm's profitability and cost level improvements in comparison with company's main competitors. Finally we have included in our study a construct, measuring company's adaptability as readiness to face future market challenges [Ruekert, Walker & Roering, 1985]. We assume, that this construct will allow this model to add dynamic aspect as possible impact on firm's future market success.

H10: There is a positive relationship between supplier's perceived monetary value and business performance.
H11: There is a positive relationship between supplier's perceived monetary value and adaptability.
H12: There is a positive relationship between supplier's perceived non-monetary value and business performance.
H13: There is a positive relationship between supplier's perceived non-monetary value and adaptability
H14-19: The level of relational capabilities development (process configuration, communication and control capabilities) has positive impact on firm's business performance and adaptability.

Conceptual research model

Considering the assumptions made, we propose the following conceptual model for empirical investigation on the base of the sample of industrial firms (see Figure 2). Our approach analyzes the role of firm's relational capabilities development — including the three capabilities subdimensions [Jacob, 2003] — process configuration, communication and control capability. The main assumption implies that the level of relational capabilities development has direct positive impact on both relationship monetary and non-monetary value creation. Finally, we imply that relational capabilities may have direct impact on firm's business performance and adaptability as readiness to meet future market challenges.

These assumptions allow us to adapt the competitive-advantage creation concepts to the aims of our study, and propose an approach to understanding of the logic of relationship-based advantage creation (see Figure 3 below). This approach can be seen as research agenda for further investigation and allows us to analyze relationship value as an element in the process of competitive advantage creation, thus contributing to firm's long-term competitiveness.

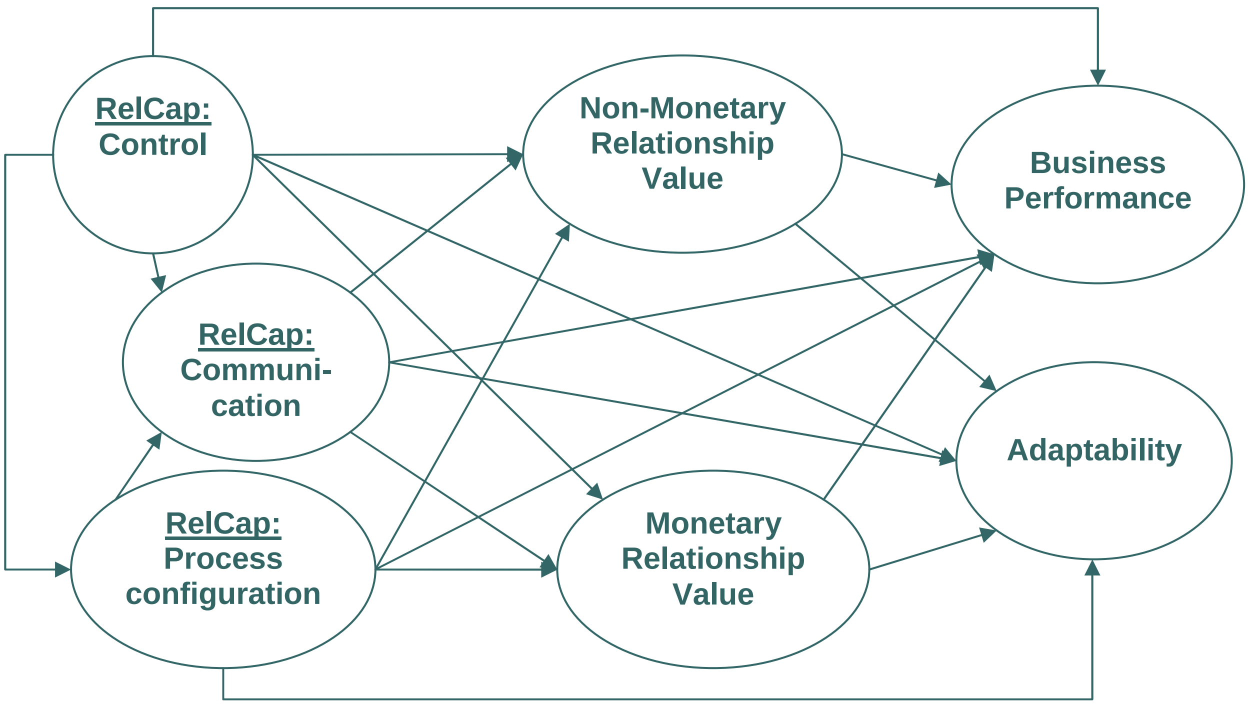

Fig. 2. Conceptual research model presentation

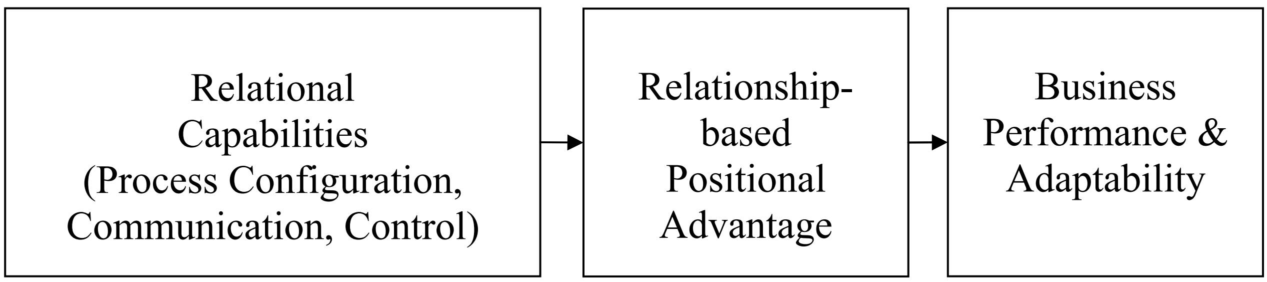

Fig. 3. The logic of relationship-based advantage creation

Data Collection and Sample

A sample was drawn from the industries directory of German registered firms of such industries as mechanical engineering, metallurgy, machinery, etc. Data were collected on the base of the self-administered questionnaire sent to representatives of top-management in industrial companies in two phases. During the first phase, multiple copies of the questionnaire, introductory letters and reply envelopes were mailed to the members of Giessen-Friedberg Chamber of Commerce, that agreed to support the study. We expected that this approach would yield a higher response rate than a simple mass mailing. After the return rate proved to be just 8% of sent out questionnaires we have decided to conduct also a simple mass mailing on the base of a data base of Frankfurt/Main Chamber of Commerce. Additional mass mailing was conducted as postal mailing and emails to the companies whose representatives have agreed to accept the questionnaires and participate in the study. The total return rate proved to be 19,8% (185/934) with a final sample size of 185 industrial firms.

The research hypotheses were tested using structural equation modeling on the base of the software package AMOS 4 (Analysis of Moment Structures). All measures were analyzed for validity and reliability according to the requirements for checking the goodness-of-fit in structural modeling [Homburg & Pflesser 2000; Loevenich 2002]. The resulting measurement model $\chi 2_{(116)}$= 1,468 (p=0,001). The other overall fit indices obtained for the model were as follows: CFI = 0,971, TLI = 0,961, IFI = 0,971, GFI = 0,907, RMSEA = 0,050, RMR=0,66. Taking into consideration the complexity of the model these goodness-of-fit statistics suggest that the overall model is acceptable (Anderson & Gerbing 1984). In the scales we have used a seven point Likert scale was used (1=strongly disagree; 7 = strongly agree).

We have undertaken sequentially confirmatory factor analysis to check our constructs for unidimensionality. On the base of conducted test for unidimensionalty we have decided to use item parceling technique in order to decrease bias in structural parameters. This technique is preferred when sample size is relatively small, because fewer parameters are needed to define a construct when parcels are used. [e.g., Bagozzi & Edwards, 1998].

Table 4

Measurement Statistics

	Mean	α*	AVE**	CR***	FL****
RelCap: Process Configuration	5,21	0,88	0,67	0,86	0,79-0,86
RelCap: Communication	4,75	0,92	0,69	0,87	0,80-0,84
RelCap: Control	4,56	0,93	0,74	0,89	0,77-0,96
Non-monetary value	5,10	0,90	0,76	0,86	0,86-0,88
Monetary value	4,65	0,86	0,68	0,87	0,78-0,84
Business performance	4,24	0,74	0,60	0,75	0,72-0,82
Adaptability	4,92	0,69	0,55	0,71	0,69-0,78

* Cronbach's α
** Average variance extracted
*** Composite reliability
**** Factor loadings

Fit Statistics:
$\chi 2(116)$ =170.333 (p=0,001), df = 1,468, CFI=0,971, NFI=0,915, IFI =0,971, TLI=0,961, GFI=0,907, RMSEA=0,050, RMR=0,66

Operationalization

The items for the measurement of study constructs were in most part taken from previous studies to relevant research directions. All scales involved are structured as 7-point Likert scale.

The construct of relational capabilities in our study is based on the modified scales from the study of Jacob [2003] as combination of three firm's capabilities: process configuration capability, communication capability and control capability. As mentioned previously, use of these scales underpins our emphasis on the relational capability as combinative [Foss, 1998] cross-functional capability, representing a unique bundle of skills, processes and organizational routines.

According to the aims of our study we have developed a new approach to the measurement of the supplier perceived monetary and non-monetary relationship value based on the analysis of research literature and existing scales. We have asked the respondents to analyze relationship value as supplier-perceived contribution of the relationship to the achievement of supplier's aims (relationship should exist not less than 2 years) and evaluate the results of your efforts in managing customer relationships. The measurement of non-monetary relationship value includes such items as hybrid culture creation [Wilson & Jantrania, 1996], openness [, employee motivation, decision support, stability of relationship, creation of relationship-based entry barriers [Tewes, 2003; Werani, 2001; Krafft, 2002]. Monetary relationship value measurement is based on sales volume/customer, frequency of buying, total sales volume dynamics [Hildebrand, 1997]. Finally, considering, that we propose a new scale for relationship value measurement, we have included in the questionnaire the scale, evaluating the items proposed concerning their importance for the respondents. We assumed, that this would allow us to remove the items when not important for the respondents and thus check the validity of the items proposed (see Table 5 below). The importance was measured on the 7-point Likert scale (1 — not important at all, 7 — highly important).

For the measurement of the constructs, representing the company's performance, we have used the following scales: the scale for business performance construct was adopted from the study of Hildebrand [1997], and the firm's adaptability scale was developed on the base of the approach of Vorhies and Harker [2000].

Table 5

The results of items' importance analysis

Short item description	**Importance (1-7)** (1 – not important at all, 7 – highly important)
Stability of relationship	6,453
Creation of relationship-based entry barriers	6,214
More stable quality	6,172
Creation of hybrid-culture	6,168
More open and effective relationships	6,124
More innovative suggestions	6,065
Decision-making support	5,959
Personnel motivation enhancement	5,906
Improvement of task execution in the firm	5,762
More action freedom for the firm	5,390

Results

We have tested 19 hypotheses, 11 of 19 hypotheses were supported. Fig. 2 presents the diagram of relations of the estimated model.

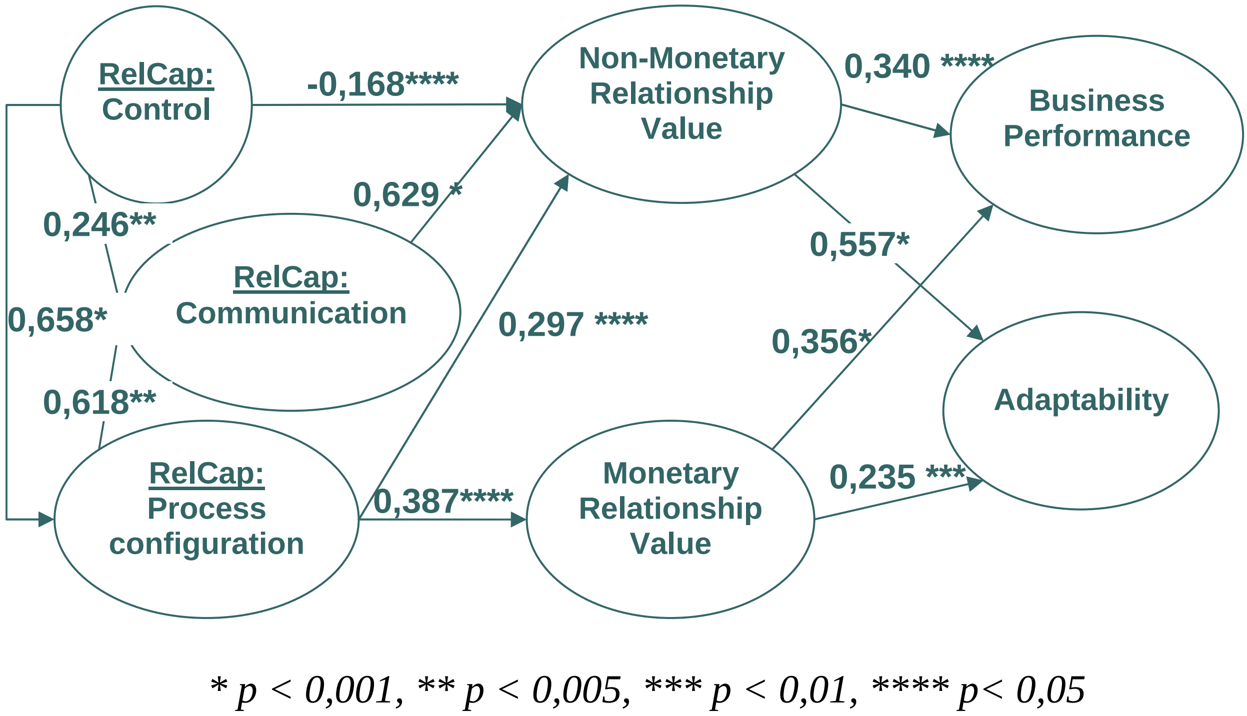

Fig. 4. Results of the model testing

Our main result is that we have generally provided empirical evidence on the impact of the level of relational capabilities development on both relationship monetary and non-monetary value development, and relationship value has also positive effect on firm's performance and adaptability.

We have assumed positive effects from the side of all the three relational capabilities sub-dimensions, but only two of them have proved to influence relationship value creation positively. Some of the causal links were not statistically significant, but more surprisingly was the negative effect of the level of control capability development on the non-monetary relationship value! Despite the fact that control capability has proved to have influence on other relational capabilities sub-dimensions, it has no significant effect on monetary value and it has negative effect on non-monetary relationship value. At the same time, it is interesting to report that monetary value is determined only by the level of development of supplier's process configuration capability. The non-monetary value is influenced from the side of all the sub-dimensions, but the strongest effect is from the side of supplier's communication capability.

Finally, both relationship monetary and non-monetary value have influence on firm's business performance and adaptability. It is remarkable that monetary value has stronger effect on business performance than adaptability as firm's readiness to meet market challenges in future. At the same time, non-monetary value has positive effect on business performance and very strong impact on firm's adaptability.

Discussion

The main aim of our study has been investigation of relationship value creation mechanisms and effectiveness of industrial companies' efforts to invest in customer relationships management. The results we have received propose basis for research discussion and represent research agenda for further investigations and analysis.

During the phase of model adjustment we have analyzed effect of the level of relational capabilities development when seen as one construct and proved the strong positive effect on both monetary and non-monetary relationship value. But when analyzed separately, the three relational capabilities sub-dimension support just selected hypotheses made in frames this study. On one side, we have proved general influence of capabilities sub-dimensions on both monetary and non-monetary value, but these results are not without controversy.

It is quite easy to explain, that monetary relationship value is determined mainly by the level of firm's process configuration capability. This means, the better the planning procedures, the higher personnel qualification in project management, the more effective are customer relationships. This aspect is more operational one, meaning operational effectiveness leading to higher economic results.

On the other hand, when analyzing the non-monetary value we consider intangible value aspects — both social and strategic. Strong impact from the side of supplier's communication capability is quite logical, and implies that the effective, open and transparent the communications between the firms are, the higher is the potential for creation of additional relationship-based advantages — as, for example, hybrid culture, supporting and enhancing interaction. These advantages can even be seen as additional relationship-based entry barriers. The process configuration capability is also contributing to non-monetary value creation, but has not that strong impact.

The negative impact from the side of control capability, implying firm's investments in documenting procedures, analytical methods and personnel qualifications, oriented on interaction analysis and control, leads us to the conclusion that this capability can be regarded as supportive or facilitating one to develop the other capabilities, directly contributing to value creation. These results lead us to 2-level order of relational capabilities sub-dimensions, assuming different meaning and roles of selected sub-dimensions.

This conclusion proposes the basis for further conceptual and empirical analysis on relational capabilities, its structure and role in value creation, as proposed by Möller and Törrönen [2003].

Conclusion and implications

In our study we have followed current existing interest to contribution of marketing discipline to the achievement of sustained competitive advantage [Day & Van den Bulte, 2002; Santos-Vijande *et al*., 2005] and analyzed customer relationships as firm's resources in combination with relational capabilities in order to explore practical effects of development of these resources and capabilities on organizational results and firm's effective differentiation.

High perceived relationship value is crucial for our model, since it presents the high level of understanding of relationship potential and as Blois and Wilson [2000] imply, "understanding value creation and having the ability to create and manage relationships are core capabilities". Understanding of mechanisms of relationship value creation can lead to more optimal allocation of scarce resources in supplier's firm and increase effectiveness of customer relationships.

Following the globalization business model of each company will be challenged [Stabell and Feldstad, 1998] so more and more important is development of unique organizational capabilities and prolonging thus the period of competitive advantages for the firm. Our results show that effective relationship strategy contributes to flexibility of a firm. In line with the above mentioned concept of value innovation (or strategic innovation) [Matthyssens & Vandenbempt, 2003], superior relational capabilities and higher potential of customer relationships enable company to "out-competence" competitors.

Drawing attention to strategic throughout-organizational character of relationship management and relationship value creation processes in industrial markets we underline that only joint efforts of full-time and part-time marketers [Gummesson, 1999] can contribute to creation of long-term sustainable competitive advantage, prolonging the period of competitive superiority of the firm. When speaking about intangible assets as the source of potential competitive advantage it is necessary to build and maintain the institutional support within organization, aligning and coordinating work of related departments, working groups and single employees.

From a strategic viewpoint, the results of the present research work enable us to point out the need for more understanding of mechanisms and precursors of relationship value creation in concrete firms. It is hard to imagine how something can be measured without clear understanding of probable outcomes and effect on business results of the firm.

With our study we expressed our concern for lack of understanding of these mechanisms by the firm's management and provide them clear evidence of hidden relationships between relationship-oriented actions, innovations and capabilities and firm's potential to compete in the market at the present moment and in the future.

Limitations

The first limitation is the supplier perspective chosen to investigate the mechanism and the determinants of the relationship value creation in industrial markets. We understand limited possibilities of taking decisions on the base of supplier-perceived relationship value. Without doubt, effective decisions can be taken only in case of following the both-sides perspective. But we have proved that there is a large sphere of information and knowledge hidden in the sphere of supplier's perceived value, and in combination with data and feedback from customers this can enable firms to build really successful relationships with high potential for collaboration (high-performing or networking relationships according to Walter et al., 2001).

Second limitation is connected with the sample based on the industrial firms from a limited number of industries. And thought this approach contributes to the comparability between the companies of the sample, it remains a limitation in sense of the potential of results generalization.

The dynamic aspect of the capabilities development was not assumed by the aim of our study except one variable — firm's adaptability, but the results achieved allow us to propose these issued for the investigation by the future research. The other intriguing research direction could be analysis of these mutual strategies adjustment from the customer's and supplier's side, contributing to understanding of the relationship value creation processes.

We understand these limitations of our study and propose our findings for further investigation and analysis.

Appendix A – Scales

1. **Indirect measurement of configuration competence**
    a. In our company we have the technological expertise needed to develop problem solutions for our customers.
    b. In our company we have standard procedures to collaborate with customers on individual problem solutions.
    c. In our company we have the planning tools to collaborate with customers on individual problem solutions.
    d. Our employees are sufficiently qualified in our technological field to develop problem solutions.
    e. Our employees are sufficiently qualified in the applications are of our customers to develop problem solutions.
    f. Our employees are sufficiently qualified in the area of project management to develop problem solutions.
    g. In our company customer projects are planned on systematic basis.
    h. In our company customer influence on projects is taken into account during the project planning process.
    i. In our company customer inputs are integrated in the development of problem solutions.

2. **Indirect measurement of communication competence**
    a. In our company we have methods to capture data detailing customer's needs.
    b. In our company we have methods to demonstrate problem solutions to our customers.
    c. In our company we have an infrastructure to communicate with our customers.
    d. Our employees are qualified to capture the detailed needs of our customers.
    e. Our employees are qualified to demonstrate solutions to customer problems.
    f. Our employees are qualified to interact appropriately with customers and to manage possible conflicts when collaborating with customers.
    g. In customer projects for problem solutions, we make sure that customers' needs are actually captured and taken into consideration.
    h. In customer projects for problem solutions, we motivate our customers to provide input.

    i. In customer projects for problem solutions, we make sure a high degree of transparency exists in the collaboration process with our customers.

3. **Indirect measurement of control competence**
    a. In our company we have methods to calculate the costs and prices of problem solutions.
    b. In our company we have methods to document collaboration with customers on problem solutions.
    c. In our company we have methods to analyze ex post the success or failure of customer projects with problem solutions.
    d. Our employees are qualified to calculate the costs and prices of problem solutions.
    e. Our employees are qualified to document the collaboration with customers on problem solutions.
    f. Our employees are qualified to analyze ex post the success or failure of customer projects with problem solutions. In our company we calculate the costs and prices of individual problem solutions.
    g. In our company we appropriately document collaboration with customers on problem solutions. In our company we frequently analyze ex post the success or failure of customer projects with individual problem solutions.

4. **Non-monetary relationship value**: please evaluate the results of your efforts in managing customer relationships concerning the following aspects:
    a. Stability of relationship
    b. Creation of relationship-based entry barriers
    c. More stable quality
    d. Creation of hybrid-culture
    e. More open and effective relationships
    f. More innovative suggestions
    g. Decision-making support
    h. Personnel motivation enhancement
    i. Improvement of task execution in the firm
    j. More action freedom for the firm
5. **Monetary relationship value:** Please evaluate the dynamics in following indicators of your customer relationships:
    a. Sales volume/customer,
    b. Frequency of buying,
    c. Total sales volume dynamics.

6. **Business performance**: Please evaluate, how the following indicators have changed over last 3 years in comparison with your main competitors?
    a. Overall cost level;
    b. Overall profitability.

7. **Adaptability:** Please evaluate the following statements:
    a. We have all the necessary resources to be ready to react timely to new market chances.
    b. We can bring our new products and services quicker to the market than our competitors.

Appendix B. Measurement Statistics

Table 6

Second-Order Confirmatory Factor Analysis Results

Factor/Item	Standardized factor loading	Percent variance extracted	Construct reliability	Cronbach's alpha
Non-Monetary Relationship Value				
1	0,871	0,76	0,86	0,90
2	0,873			
Monetary Relationship Value				
1	0,845			
2	0,786	0,68	0,87	0,86
3	0,844			
RelCap: Process Configuration				
1	0,795			
2	0,859	0,67	0,86	0,88
3	0,796			
RelCap: Communication				
1	0,801			
2	0,843	0,69	0,87	0,92
3	0,842			
RelCap: Control				
1	0,777			
2	0,959	0,74	0,89	0,93
3	0,837			
2	0,65			
Business performance				
1	0,765	.60	0,75	0,74
2	0,778			
Adaptability				
1	0,685	.55	0,71	0,69
2	0,793			

Table 7

Correlation/Covariance Matrix

	NMRV	**MRV**	**RC:PC**	**RC: Comm**	**RC: Control**	**BR**	**Adapt**
NMRV		0,318	0,492	0,594	0,419	0,244	0,492
MRV	0,362		0,512	0,302	0,229	0,405	0,368
RC:PC	0,668	0,380		0,626	0,633	0,156	0,328
RC:Comm	0,316	0,315	0,780		0,681	0,064	0,439
RC: Control	0,424	0,192	0,659	0,655		0,063	0,206
Business Performance	0,430	0,443	0,261	0,316	0,080		0,334
Adaptability	0,670	0,417	0,444	0,548	0,215	0,558	

Correlations are below the diagonal, and covariances are above the diagonal.

Table 8

Discriminant Validity Analysis

Constructs	Squared correlation co-efficients	AVE
Non-Monetary Relationship Value	0,10-0,45	0,67
Monetary Relationship Value	0,04-0,20	0,69
RelCap: Process Configuration	0,07-0,61	0,74
RelCap: Communications	0,10-0,61	0,76
RelCap: Control	0,04-0,43	0,68
Business Performance	0,06-0,31	0,60
Adaptability	0,05-0,45	0,55

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